

**NEW SOURCE CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT**

**Alpha Systems, Inc.
5100 Beck Drive
Elkhart, Indiana 46516**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-5.1 with conditions listed on the attached pages.

Operation Permit No.: MSOP039-11066-00504	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee currently owns and operates an adhesive manufacturing plant. The Permittee proposed to construct and operate a plant that will manufacture fiberglass countertops and sinks.

Authorized Individual: Steve Rusincovitch
Source Address: 5100 Beck Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Phone Number: (219) 295-5206
SIC Code: 2891
County Location: Elkhart
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) stone mixer, identified as M1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/countertop molding, C1.
- (b) One (1) flat sheet open molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the countertops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 for finishing as a final product. This operation is capable of sawing and sanding 105 cubic feet per minute of product.

One (1) dust collector, identified as DC1 used to control the particulate matter (PM) emissions coming from facility S1.

- (c) One (1) sink/countertop closed molding line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts are conveyed to the 0.8 million Btu/hr (mmBtu/hr) natural gas-fired dryer, identified D1 for drying as a final product.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) The source shall submit a Title V permit application within twelve (12) months after the source becomes subject to Title V. This 12-month period starts at the postmarked submission date of the Affidavit of Construction.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding Condition B.7, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emissions units were constructed as proposed in the application. The emissions units covered in the New Source Construction Permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).
- (e) Pursuant to 326 IAC 2-7-4 and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within twelve (12) months after the source becomes subject to Title V. This 12-month period starts at the postmarked submission date of the Affidavit of Construction. If the construction is completed in phases, the 12-month period starts at the postmarked submission date of the Affidavit of Construction that triggers the Title V applicability. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

The total source potential to emit of volatile organic compounds (VOC) is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Source Modification [326 IAC 2-7-10.5]

- (a) The Permittee must comply with the requirements of [326 IAC 2-7-10.5] whenever the Permittee seeks to construct new emissions units, modify existing emissions units, or otherwise modify the source.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
 - (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
 - (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
 - (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
- (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
 - (2) The Permittee, and IDEM, OAM acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.

- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

Testing Requirements

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.14 Annual Emission Statement [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
- (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:
- Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.15 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.16 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

- (a) One (1) stone mixer, identified as M1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/countertop molding, C1.

- (b) One (1) flat sheet open molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the countertops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 for finishing as a final product. This operation is capable of sawing and sanding 105 cubic feet per minute of product.

One (1) dust collector, identified as DC1 used to control the particulate matter (PM) emissions coming from facility S1.

- (c) One (1) sink/countertop closed molding line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts are conveyed to the 0.8 million Btu/hr (mmBtu/hr) natural gas-fired dryer, identified D1 for drying as a final product.

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The volatile organic material used in the flat sheet open molding line, FS1 and the sink/countertop closed molding line, C1 including the stone mixer M1 shall be limited such that the VOC emissions shall be less than 25 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the volatile organic material used shall be limited such that the total volatile organic material used divided by accumulated months of operation shall be less than VOC emission average of 2.08 tons per month, rolled on a monthly basis. Therefore, 326 IAC 8-1-6 will not apply.

D.1.2 Hazardous Air Pollutants (HAPs)

- (a) The HAP material used in the Resin Molding Plant (mixer M1, flatsheet, countertop and sink molding facilities) shall be limited such that the single HAP emissions shall be less than 10 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the HAP material used shall be limited such that the total HAP material used divided by accumulated months of operation shall be less than a single HAP emission average of 0.83 tons per month, rolled on a monthly basis. Therefore, 326 IAC 2-4.1-1 (New Source Toxics Control) will not apply.

- (b) The HAP material used in the Resin Molding Plant (mixer M1, flatsheet, countertop and sink molding facilities) shall be limited such that the combined HAPs emissions shall be less than 25 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the HAP material used shall be limited such that the total HAP material used divided by accumulated months of operation shall be less than a combined HAPs emission average of 2.08 tons per month, rolled on a monthly basis. Therefore, 326 IAC 2-4.1-1 (New Source Toxics Control) will not apply.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

The PM emissions from the Sawing/Sanding operation, S1 shall be limited to 3.14 pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Resin Molding operation (mixer M1, flat sheet open molding line, FS1; sink/countertop closed molding line, C1; and baghouse DC1).

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM compliance with the VOC limit specified in Condition D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.6 Volatile Organic Compounds (VOC)

Compliance with the VOC and HAP content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined using formulation data supplied by the manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.7 Baghouse Operation

Baghouse DC1, shall always be in operation, whenever the Sawing/Sanding operation S1 is in operation.

D.1.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the Sawing/Sanding operation S1, when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.9 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.1 and D.1.2.

(1) The amount and VOC and HAP content of each material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(2) A log of the dates of use;

- (3) The cleanup solvent usage for each month;
 - (4) The total VOC and HAP usages for each month; and
 - (5) The weight of VOCs and HAPs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**Minor Source Operating Permit
Quarterly Report**

Source Name: Alpha Systems, Inc.
Source Address: 5100 Beck Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive Elkhart, Indiana 46516
Operation Permit: MSOP039-11066-00504
Facility: Flat sheet open molding line, FS1 and the sink/countertop closed molding line, including the stone mixer M1
Parameter: Volatile Organic Compounds
Limit: Shall be less than 25 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the volatile organic material used shall be limited such that the total volatile organic material used divided by accumulated months of operation shall be less than VOC emissions average of 2.08 tons per month, rolled on a monthly basis. Therefore, 326 IAC 8-1-6 will not apply.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**Minor Source Operating Permit
Quarterly Report**

Source Name: Alpha Systems, Inc.
Source Address: 5100 Beck Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive Elkhart, Indiana 46516
Operation Permit: MSOP039-11066-00504
Facility: Resin Molding Plant (mixer M1, flatsheet, countertop and sink molding facilities)
Parameter: Single HAP and Combined HAPs
Limit: (a) Single HAP - shall be less than 10 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the HAP material used shall be limited such that the total HAP material used divided by accumulated months of operation shall be less than a single HAP emissions average of 0.83 tons per month, rolled on a monthly basis.

(b) Combined HAPs - Shall be less than 25 tons per twelve-month period, rolled on a monthly basis

During the first twelve (12) months of operation, the HAP material used shall be limited such that the total HAP material used divided by accumulated months of operation shall be less than a combined HAPs emissions average of 2.08 tons per month, rolled on a monthly basis.

YEAR: _____

Month	This Month		Previous 11 Months		12 Month Total	
	Single HAP Emitted (tons)	Combined HAPs Emitted (tons)	Single HAP Emitted (tons)	Combined HAPs Emitted (tons)	Single HAP Emitted (tons)	Combined HAPs Emitted (tons)
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a New Source Construction Permit and Minor Source Operating Permit

Source Background and Description

Source Name:	Alpha Systems, Inc.
Source Location:	5100 Beck Drive, Elkhart, Indiana 46516
County:	Elkhart
SIC Code:	3088
Operation Permit No.:	MSOP 039-11066-00504
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed an application from Alpha Systems, Inc. relating to the construction and operation of a new plant that will manufacture fiberglass countertops and sinks. The plant will include the following equipment:

- (a) One (1) stone mixer, identified as M3 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/countertop molding, C1;
- (b) One (1) flat sheet molding, identified as FS1 which has a rated capacity of 3,000 lb/hr;
- (c) One (1) sink/countertop molding, identified as C1 which is capable of molding 34 parts per hour;
- (d) Saw and sanding operation, identified as S1 which is capable of sawing and sanding 105 cubic feet per minute of product;
- (e) One (1) natural gas-fired sink/countertop molding dryer, identified as D1 with a heat input capacity of 0.8 million Btu/hr (mmBtu/hr); and
- (f) One (1) dust collector, identified as DC1 used to control the particulate matter (PM) emissions coming from facility S1.

Source Definition

Alpha Systems, Inc. consists of two (2) plants:

- (a) Existing Plant, located at 5120 Beck Drive, Elkhart, Indiana; and
- (b) Proposed Plant, located at 5100 Beck Drive, Elkhart, Indiana.

The two (2) sources are owned by one person, located on the same property, but have different SIC codes. Existing Plant manufactures adhesives and sealants used exclusively by the motor home industry, with SIC code of 2891. The proposed Plant 2 will manufacture fiberglass countertops and sinks, with SIC code of 3088.

IDEM has determined that Alpha Systems' two plants are considered **separate** sources.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
DC1	Sawing & Sanding	-	-	5,650	ambient
FS1	Flat Sheet Molding	-	-	1,000	ambient
D1	Sink/Countertop Molding Dryer	-	-	3,000	ambient
Note: All processes in this table are all venting inside the building.					

Recommendation

The staff recommends to the Commissioner that the Minor Source Operating Permit (MSOP) be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 15, 1999.

Emission Calculations

- (a) Natural Gas Combustion From the Sink/Countertop Molding Dryer: See page 1 of 1 TSD Appendix A for detailed emission calculations.
- (b) Resin Molding Emissions:

	VOC EMISSIONS			
Material	Production Throughput (gal/yr)	Density (lb/gal)	Wt. % VOC	VOC Emissions (tons/yr)
Chemlease PMR	482	6.71	99%	1.6
Chemlease #15	482	6.55	95%	1.5
TF-100	482	7.42	88% styrene	1.57
Paste Wax	3	7.0	70%	0.0
Hi Point 90	3,971	9.26	3%	0.55
Polylite	198,560	9.25	36% styrene	45.9
Marble Wash Solvent	1,577	9.13	100%	7.2
TOTAL				58.32

Note: Only one (1) line can operate in one time, either the Flat Sheet Molding Line or the Coutertop/Sink Molding Line. Materials are all added or mixed together and then molded.

Methodology:

Styrene Emissions = Throughput, gal/yr * density, lb/gal * Ef, from the Styrene Emission Factor Table * ton/2000 lb

VOC emissions = Throughput, gal/yr * density, lb/gal * % VOC * 100 % flash off * ton/2000 lb

	HAPs EMISSIONS					
Material	Production Throughput (gal/yr)	Density (lb/gal)	Wt. % Styrene	Styrene Emissions (ton/yr)	Wt % MEK	MEK Emissions (ton/yr)
TF-100	482	7.42	88%	1.57	-	-
Hi Point 90	3,971	9.26	3%	0.55	2%	0.34
Polylite	198,560	9.25	36%	45.9		
Worst Single HAP Emissions				48.03		
Combined HAPs Emissions				48.4		

Methodology:

HAP Emissions, ton/yr = Throughput, gal/yr * density, lb/gal * HAP * ton/2000 lb

Styrene Emissions = Throughput, gal/yr * density, lb/gal * Ef, from the Styrene Emission Factor Table * ton/2000 lb

(c) PM/PM10 Emissions from the Sawing and Sanding of Flat Sheets:

$$\begin{aligned} \text{PM} = \text{PM10} &= 5,650 \text{ cu ft/min} * 0.023 \text{ gr/cu ft} * 60 \text{ min/hr} * \text{lb/7000 gr} * 8760 \text{ hr/yr} * \text{ton/2000 lb} \\ &= 4.8 \text{ ton/yr (after control)} \end{aligned}$$

$$\begin{aligned} \text{PM} = \text{PM10 before control} &= 4.8 \text{ ton/yr} / 1-.99 \\ &= 480 \text{ tons/yr} \end{aligned}$$

Potential To Emit Before Controls (New Plant)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	480
PM-10	480
SO ₂	0.0
VOC	58.32
CO	0.3
NO _x	0.4

HAP's	Potential To Emit (tons/year)
Styrene	48.03
MEK	0.34
TOTAL	48.4

Justification for the Permit Level Determination

- (a) The construction of the new plant is subject to 326 IAC 2-7 (Part 70 Permit Program), because PM 10 emissions are greater than 100 tons per year; and
- (b) The single HAP or the combined HAPs emissions are greater than 10 tons per year or 25 tons per year respectively.
- (c) The source will be issued a Minor Source Operating Permit, and has to apply for a Title V or a FESOP within 12 months from the issuance of this MSOP.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone.

Potential to Emit After Controls

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the new plant.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Countertop/sink Molding Line	0.0	0.0	0.0	24.0	0.3	0.4	9.0 -single HAP 24.0 combined HAPs
Sawing/Sanding Operation	4.8	4.8	0.0	0.0	0.0	0.0	0.0
Total Emissions	4.8	0.96	0.0	24.0	0.3	0.4	9.0 -single HAP 24.0 combined HAPs

This new plant is not major because no attainment pollutant is emitted at a rate of 250 tons per year. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS):
There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) National Emissions Standards for Hazardous Air Pollutants (NESHAPs):
There are no NESHAPs, 40 CFR Part 63 applicable to this source.

State Rule Applicability

- (a) 326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons of VOC per year and it is located in Elkhart County, which is one of the counties listed in the rule. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).
- (b) 326 IAC 5-1 (Visible Emissions Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

- (a) 326 IAC 8 Volatile Organic Source
There are no rules in Article 326 IAC 8 that would apply to this source, because it does not fit any of the sources/operations listed in the rules.
- (b) 326 IAC 8-1-6 (General Reduction Requirements for New Facilities)
This rule applies to new facilities as of January 1, 1980, which have potential VOC emissions of 25 tons per year or more located anywhere in the state, which are not otherwise regulated by other provisions of this article 326 IAC 8.

- (1) The countertop/sink molding line is subject to this rule, since its VOC emissions of 58.32 tons/year are greater than 25 tons per year.
The source however, requested a limit of 24 tons per year for this molding line.
Therefore, 326 IAC 8-1-6 will not apply in this case.
- (c) 326 IAC 6-3-2 (Process Operations)
The particulate matter (PM) from the sawing and sanding operations shall have a PM emissions limit using the following equation:
- $$\begin{aligned} E &= 4.10 P^{0.67} \\ &= 4.10 (0.67)^{0.67} \\ &= 3.14 \text{ pounds per hour} \\ &= 13.7 \text{ ton/yr} \end{aligned}$$
- where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
= 1344 lb/hr * ton/2000 lb
= 0.67 ton/hr
- The source is in compliance with this rule, because its controlled PM emissions at 4.8 tons/yr are less than the PM limit of 3.14 pounds/hour (13.7 tons/yr).
- (d) 326 IAC 2-4.1.1 (New Source Toxics Control)
The source is not subject to this rule, because the source has requested a limit of 24 tons per year, and 9 tons per year for combined HAPs and single HAP respectively.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) The source has requested a limit of 24 tons per year, and 9 tons per year for combined HAPs and single HAP respectively.

Conclusion

The operation of this countertop/sink production plant shall be subject to the conditions of the attached proposed **New Source Construction Permit and Minor Source Operating Permit MSOP No. 039-11066-00504**.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for New Source Construction and Minor Source Operating Permit

Source Name:	Alpha Systems, Inc.
Source Location:	5100 Beck Drive, Elkhart, Indiana 46516
County:	Elkhart
Minor Source Operating Permit No.:	MSOP 039-11066-00504
SIC Code:	2891
Permit Reviewer:	Aida De Guzman

On August 20, 1999, the Office of Air Management (OAM) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Alpha Systems, Inc. had applied for a construction permit and a Minor Source Operating Permit to construct and operate a plant that will manufacture fiberglass countertops and sinks. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On September 17, 1999, Alpha Systems, Inc., submitted comments regarding the proposed permit. The summary of the comments and corresponding responses is as follows (changes are bolded for emphasis):

- Comment 1: Section A.1, General Information - The phone number listed in the proposed permit is incorrect. The listed number should be (219) 295-5206.
- Response 1: The listed telephone extension number in Section A.1 on page 3 of 16 of the proposed permit was corrected to (219) 295-5206.
- Comment 2: Section A.2, Emission Units and Pollution Control Equipment Summary - Please change the identification of the Alpha Stone Mixer from M3 to M1. This change should be reflected throughout the permit. The initial identification in the permit application was inaccurate.
- Response 2: The new identification for the mixer was changed from M3 to M1.
- Comment 3: Condition D.1.2(b) on Page 12 of 16 of the proposed MSOP has a typographical error. It should be revised to read as follows:
- (b) The HAP material used in the Resin Molding Plant (countertop and sink molding facility) shall be limited such that the ~~single~~ combined HAPs emissions shall ~~not exceed~~ **be less than** 25 tons per twelve-month period, rolled on a monthly basis
- Response 3: The typographical error in condition D.1.2(b) and also on (a) of this condition on Page 12 of 16 of the proposed MSOP was corrected as follows:
- (a) The HAP material used in the Resin Molding Plant (**mixer M1, flatsheet,** countertop and sink molding facilities) shall be limited such that the single HAP emissions shall ~~not exceed~~ **be less than** 10 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the HAP material used shall be limited such that the total HAP material used divided by accumulated months of operation shall ~~not exceed~~ **be less than** a single HAP emissions average of ~~0.75~~ **0.83** tons per month, **rolled on a monthly basis**. Therefore, 326 IAC 2-4.1-1 (New Source Toxics Control) will not apply.

- (b) The HAP material used in the Resin Molding Plant (**mixer M1, flatsheet, countertop and sink molding facilities**) shall be limited such that the ~~single~~ **combined** HAPs emissions shall ~~not exceed~~ **be less than** 25 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the HAP material used shall be limited such that the total HAP material used divided by accumulated months of operation shall ~~not exceed~~ **be less than** a combined HAPs emission average of **2.08** tons per month, **rolled on a monthly basis**. Therefore, 326 IAC 2-4.1-1 (New Source Toxics Control) will not apply.

Comment 4: Section D.1.4, Preventive Maintenance Plan - The proposed permit requires a Preventive Maintenance Plan (PMP) for the "Resin Molding Operation". The requirements of 326 IAC 1-6-3 are generally applied to air pollution control equipment. The resin molding portion of the proposed operation does not include any such control equipment. Breakdown or malfunction of the molding operation would result in a production halt, and thus would not result in any excess emissions. Alpha Systems, Inc. believes that application of PMP requirements to the resin molding portion of the process is overly burdensome.

The flat sheet process however, incorporates a sawing and sanding operation connected to an internal dust collector, Baghouse DC1. Application of PMP requirements to this dust collector is both feasible and reasonable.

Accordingly, Alpha Systems respectfully requests that Section D.1.4 be amended and/or clarified as to which equipment should be included in the PMP Program.

Response 4: The requirements to maintain a Preventive Maintenance Plan is applicable to any facility that is required to obtain a permit under 326 IAC 2-1-2 and 326 IAC 2-1-4. Facility may include emission control equipment and combustion or process equipment or processes. A PMP can be created to reduce excessive malfunctions in combustion and process equipment, as well as control devices, thus minimizing emissions. A PMP can also be created to minimize emissions in process equipment through good work or business practices, and equipment manufacturer's troubleshooting guidance. Therefore, condition D.1.4 will remain.

To clarify which equipment needs a PMP, Condition D.1.4 is revised as follows:

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Resin Molding operation (**mixer M1, flat sheet open molding line, FS1; sink/countertop closed molding line, C1; and baghouse DC1**).

Technical Support Document

Comment 1: The original building configuration for the proposed project did not include any external stacks. However, the building plans have been revised to incorporate three (3) stacks, Please include the following in final permit and TSD:

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
E-1	General Exhaust	15.67	3.5	23,000	ambient
E-2	General Exhaust	15.67	3.5	23,000	ambient
E-3	General Exhaust	15.67	3.5	23,000	ambient

Response 1: The above table will be noted in this addendum that the above stack information table is now available to the source.

Comment 2: On Page 3 of 6 of the Technical Support Document (TSD), the calculation table indicates that Hi Point 90 product contains 3% styrene. The material safety data sheet (MSDS) for this product indicates 3% by weight total VOC content, but no styrene content. Please modify the calculations to reflect this correction.

Response 2: The MSDS for Hi-Point 90 was re-reviewed, and it truly does not contain any styrene. The HAPs Emission Table on page 3 of 6 of the TSD was corrected as follows:

	HAPs EMISSIONS					
Material	Production Throughput (gal/yr)	Density (lb/gal)	Wt. % Styrene	Styrene Emissions (ton/yr)	Wt % MEK	MEK Emissions (ton/yr)
TF-100	482	7.42	88%	1.57 0.1	-	-
Hi Point 90	3,971	9.26	3% -	0.55 -	2%	0.34
Polylite	198,560	9.25	36%	45.9		
Worst Single HAP Emissions				48.03 46		
Combined HAPs Emissions				48.4 46.34		

Upon further review, the OAM has made the following changes to the proposed permit:

1. In order to fully describe the equipment found in Section A.2 Page 3 of 16 of the proposed permit, each equipment was grouped according to the process line each belongs to. The revision is as follows:
2. A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) stone mixer, identified as M3 1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/countertop molding, C1.
- (b) One (1) flat sheet **open** molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. **This facility is used to manufacture flat strips to match the countertops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 for finishing as a final product. This operation is capable of sawing and sanding 105 cubic feet per minute of product.**

One (1) dust collector, identified as DC1 used to control the particulate matter (PM) emissions coming from facility S1.

- (c) One (1) sink/countertop **closed** molding line, identified as C1 which is capable of molding 34 parts per hour. **From this process, the parts are conveyed to the 0.8 million Btu/hr (mmBtu/hr) natural gas-fired dryer, identified D1 for drying as a final product.**

~~(d) Saw and sanding operation, identified as S1 which is capable of sawing and sanding 105 cubic feet per minute of product;~~

~~(e) +~~

~~(f) One (1) natural gas-fired sink/countertop molding dryer, identified as D1 with a heat input capacity of 0.8 million Btu/hr (mmBtu/hr); and~~

2. The usages submitted in the application is the total for both lines, and the two lines share one mixer, therefore, the two lines are considered one facility subject to 326 IAC 8-1-6 . Condition D.1.1 is revised to clearly states that both lines should be limited to a total VOC less than 25 tons per year to avoid 326 IAC 8-1-6 (General Reduction Requirements).

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The volatile organic material used **in the flat sheet open molding line, FS1 and the sink/countertop closed molding line, including the stone mixer M1** ~~Resin Molding Plant (countertop and sink molding facility)~~ shall be limited such that the VOC emissions shall ~~not exceed~~ **be less than** 25 tons per twelve-month period, rolled on a monthly basis.

During the first twelve (12) months of operation, the volatile organic material used shall be limited such that the total organic material used divided by accumulated months of operation shall ~~not exceed~~ **be less than** VOC emission average of 2.08 tons per month, **rolled on a monthly basis**. Therefore, 326 IAC 8-1-6 will not apply.

2. Although the Styrene emissions in the emissions table (found in the original TSD) were calculated based on the "New CFA Emission Factors", the footnote in this table was not really clear in specifying it. Therefore, this table is revised to fully described were the emission factors used in the calculations came from.

- (b) Resin Molding Emissions:

The Styrene emissions were based on the "New CFA Emission Factors" for Manual Resin Application (Non-Vapor Suppressed Resin).

	VOC EMISSIONS	
--	---------------	--

Elkhart, Indiana
Reviewer: Aida De Guzman

Minor Source Operating permit MSOP 039-11066-00504

Material	Production Throughput (gal/yr)	Density (lb/gal)	Wt. % VOC	CFA Emission Factors - Manual Resin Application (Non-Vapor Suppressed Resin)	VOC Emissions (tons/yr)
Chemlease PMR	482	6.71	99%		1.6
Chemlease #15	482	6.55	95%		1.5
TF-100	482	7.42	88% styrene	100 % of the 88% styrene 5.6%	4.57 0.1
Paste Wax	3	7.0	70%		0.0
Hi Point 90	3,971	9.26	3%		0.55
Polylite	198,560	9.25	36% styrene	5 %	45.9
Marble Wash Solvent	1,577	9.13	100%		7.2
TOTAL					56.85 58.32

Note: Only one (1) line can operate in one time, either the Flat Sheet Molding Line or the Coutertop/Sink Molding Line. Materials are all added or mixed together and then molded.

Methodology:

Styrene Emissions = Throughput, gal/yr * density, lb/gal * Ef, from the New CFA Styrene Emission Factor Table * ton/2000 lb

VOC emissions = Throughput, gal/yr * density, lb/gal * % VOC * 100 % flash off * ton/2000 lb

3. Alpha Systems, Inc. two plants, existing plant located at 5120 Beck Drive; and the proposed plant to be located at 5100 Beck Drive were determined to be **separate** sources in the original TSD. For the purpose of State New Source Review (NSR), the definition of source in 326 IAC 1-2-73 would prevail. The definition says one source if contiguous property and same owner. So under this definition the two plants are considered to be **one** source, and therefore, will use the existing plant ID number of 039-00504.
4. The proposed plant has been determined in the MSOP to be subject to Title V, and has 12 months to apply for a Part 70 Operating Permit upon becoming a Title V source. This source determination will not change anything on this permit.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Page 1 of 1 TSD App A

Company Name: Alpha Systems, Inc.
Address: 5100 Beck Drive, Elkhart, IN 46516
MSOP: 039-11066
Plt ID: 039-00504
Reviewer: Aida De Guzman
Date: July 14, 1999

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.8

7.0

Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.0	0.0	0.0	0.4	0.0	0.3

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
above
emission

See page 2 for HAPs emissions calculations.